

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) Device for treating a surface of a substrate, comprising:

a treatment chamber for receiving the substrate therein,

at least one plasma source for generating a plasma, which plasma source is connected to the treatment chamber, and comprising inlet means for admitting at least one reactant into a flow path of the plasma,

wherein the plasma source comprises at least one cathode and at least one anode between which a system of at least [[one]] two cascade plates [[plate]] is received,

~~which at least one cascade plate is each cascade plate provided with an opening for passage of the plasma, characterized in that the at least one cascade plate is provided with a number of at least two passage openings for the passage of plasma,~~

wherein corresponding openings of successive cascade plates are substantially mutually aligned, and [[that]]

between the at least one cathode and the system of cascade plates there is a plasma space present which is in open

communication with the passage openings ~~in the at least one cascade plate of the system.~~

2. (original) Device as claimed in claim 1, characterized in that the passage openings are ordered at least almost equidistantly from each other in the at least one cascade plate.

3. (currently amended) Device as claimed in claim 1, characterized in that the ~~at least one~~ cascade plate is plates are each provided with at least three passage openings.

4. (previously presented) Device as claimed in claim 1, characterized in that the inlet means are adapted to admit the reactant, on a side of the adjacent cascade plate remote from the plasma space, into flow paths of the plasma extending through the openings.

5. (previously presented) Device as claimed in claim 1, characterized in that less than one cathode is provided per passage opening in the adjacent cascade plate.

6. (previously presented) Device as claimed in claim 1, characterized in that at least one cathode is provided per passage opening in the adjacent cascade plate.

7. (canceled)

8. (currently amended) Device as claimed in claim 2,  
characterized in that the ~~at least one~~ cascade plate is plates  
are each provided with at least three passage openings.

9. (previously presented) Device as claimed in claim 2,  
characterized in that at least one cathode is provided per  
passage opening in the adjacent cascade plate.

10. (new) Device for treating a surface of a substrate,  
comprising:

a treatment chamber for receiving a substrate therein  
with an exposed, to-be-treated substrate area;

a plasma source for generating plural separated plasma  
beams, each separated beam exiting the plasma source and directed  
to cover a different portion of the exposed substrate area,

the plasma source comprising a plasma reactant inlet, a  
cathode, and an anode;

a system of aligned cascade plates located between the  
cathode and anode,

the cascade plates each containing plural plasma  
passage openings, the passage openings of each cascade plate  
being aligned to define plural, separated plasma channels, each  
channel defining a separate plasma flow path; and

a common plasma space, situated between the cathode and a first of the cascade plates,

the common plasma space in open communication with the plural plasma channels,

the common plasma space accumulating plasma and distributing the accumulated plasma over the plural plasma channels of the first cascade plate, wherein,

exiting the plasma source is the plural, separated plasma beams (8), each plasma beam being directed to cover a different portion of the exposed substrate area.

11. (new) Device for treating a surface of a substrate, comprising:

a treatment chamber;

a substrate holder, within the treatment chamber, for holding a substrate to be treated including an exposed substrate area;

a common plasma space to accumulate plasma from a plasma generator;

a plasma source, accepting accumulated plasma from the common plasma space, with a discharge located opposite the substrate holder, the discharge providing plural, separated plasma beams (8) directed toward the substrate holder so that each plasma beam is directed to cover a different portion of the exposed substrate area,

the plasma source comprising plural cascade plates, located between an anode and a cathode, each cascade plate comprising plural plasma passage openings, the passage openings of the plates aligned to form corresponding plural plasma channels defining plural, separated plasma flow paths, wherein,

the common plasma space is located between the cathode and cascade plates,

the common plasma space is in open communication with the plural plasma channels,

the common plasma space accumulates plasma and distributes the accumulated plasma over the plural plasma channels,

exiting the plasma source at the discharge, via the plasma channels, are the plural, separated plasma beams (8), each plasma beam being directed to cover a different portion of the exposed substrate area.